REMARKS

Claims 1-9, 11-13, 15-22 and 24-33 are now pending in the application. Claims 10, 14, 23 and 34 have been cancelled. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the amendments and remarks contained herein.

Applicants have amended "relational database" in Claims 1 and 27 to "data". In the Background of the Invention, Applicants described legacy systems in addition to relational databases and other systems as potential sources of data. The relational databases, legacy systems and/or other data sources may be in normalized form, partially normalized form and/or not normalized. The data may be selectively denormalized if it is in fully normalized and/or partially normalized forms. Some data from legacy systems may include tables that are not normalized. No new matter has been presented by the foregoing amendments.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-3 and 10-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Beller (U.S. Pat. No. 5,852,819) in view of White el al. (U.S. Pat. No. 5,918,225). This rejection is respectfully traversed.

Claims 13-17, 23-29 and 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Beller (U.S. Pat. No. 5,852,819) in view of White el al. (U.S. Pat. No. 5,918,225) and further in view of Gossler et al. (U.S. Patent No. 5,79,173). This rejection is respectfully traversed.

As amended, independent method Claims 1 and 27 require the step of directly traversing the at least one of the compressed files while the compressed file is stored in memory.

Independent apparatus Claim 13 recites a system for providing analytical business reports that includes servers that directly traverse the compressed files while the compressed files are stored in memory.

As best understood by Applicants, none of the references show, teach or suggest the step of or apparatus for traversing the compressed file while the compressed file is stored in memory.

The Examiner admits that Beller does not show, teach or suggest traversing the compressed file while the compressed file is stored in memory. **Office Action at page 3**. Other than the White et al. reference discussed below, the Examiner does not allege that Gossler or any of the other references show, teach or suggest traversing the compressed file while the compressed file is stored in memory.

As best understood by Applicants, White et al. decompresses the compressed files prior to traversal. This decompression step significantly increases the response time of the system. The specification of White et al. consistently teaches storing compressed pages and decompressing the pages:

> As a result, compression is transparently added to all data objects managed by Buffer Managers. The data pages of an object are compressed when sent out to disk and decompressed when retrieved from disk, yet the object itself is unaware of this action.

White et al. at Col. 4, lines 33-36.

> When the particular data page is restored from disk (i.e., loaded by a Buffer Manager into memory), the respective decompression methodology

would be employed, followed by restoring the unused bits (in the event that natural data reduction compression is also employed).

White et al. at Col 14, lines 39-44.

Data compression is added to the system at the level of the Cache or Buffer Managers. It is preferable to isolate compression here so that each object need not be concerned about compressing itself (or even being aware that compression is occurring). As a result, compression is transparently added to all data objects managed by Buffer Managers. The data pages of an object are compressed when sent out to disk and decompressed when retrieved from disk, yet the object itself is unaware of this action.

Most objects within the system, such as tables, indexes, logs, and the like, exist as pages. As these objects are streamed to disk, each simply requests its Buffer Manager to store the object on disk. The Manager in turn stores the object on disk using the best compression methodology known to it, for the given object. In this manner, data compression is transparent to the data objects above the level of the Buffer Manager.

White et al. at Col 16, lines 22-38.

In a preferred embodiment, the compressed version of the page is retrieved into a separate buffer (i.e., separate from s.sub.-- buf). The system then decompresses the sought-after page from the separate buffer into the s.sub.-- buf buffer. The reason for using the two-buffer approach for decompression is as follows. In a preferred embodiment, a "pre-imaging" strategy is employed for pre-imaging things which are already compressed. If a client does a "read" operation followed by a "dirty" soon thereafter, the system need not recompress that particular page. The system maintains a cache of the most recently compressed version. When the system pre-images the page for transaction image processing, the system need not perform the I/O operation again (i.e., of the original, compressed data), nor need it decompress the compressed data.

White et al. at Col. 19, lines 1-15.

While White et al. may perform compression and decompression using a Buffer Manager in a manner that is transparent to other modules or objects, White et al. does not directly traverse the compressed files in memory as claimed.

As best understood by Applicants, none of the remaining references show, teach or suggest the step of or apparatus for directly traversing the compressed files while they are stored in memory.

For the foregoing reasons, Applicants believe that Claims 1, 13 and 27 are in condition for allowance. The remaining Claims are either directly or indirectly dependent upon Claims 1, 13 and 27 and are allowable over the prior art of record for the same reasons.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: 1/2/04

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